Integrated Nutrient Management Program Work Group
Minutes June 11, 2003


Announcement:
INM PWT members are invited to NYS Water Conservation Committee meeting on June 17, 2003 in 348 Morrison Hall from 10:00 to 3:00. Danny and Karl are on the committee. Quirine and Danny are going to present research concerning cuNMPS. Please bring posters that describe water quality related research.

See attached Power Point presentation.

Research focused on BMP implementation costs in Skaneateles Lake Watershed.
- Unfiltered water body.
- Drinking water supply for Syracuse.
- Emphasis on sediment reduction.
- Complex plans
  - Even though the study is not statistically representative because of the small sample size, a large volume of data was collected on the farms that they worked with. Dairy, mixed livestock, and cash crop farms all were represented. The area studied was 59 sq. miles without the lake area. There was also a large range in the size of the farms; dairies ranged from 65 to 1,000 cows (average: 323; median 110 cows).

Barnyard BMP Costs
Of the 20 dairies in the sample barnyard BMP costs:

<table>
<thead>
<tr>
<th></th>
<th>Total Cost</th>
<th>Cost /cwt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>$ 85,528</td>
<td>$ 2.58</td>
</tr>
<tr>
<td>Median</td>
<td>$ 76,838</td>
<td>$ 2.09</td>
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</tbody>
</table>

- 100% Cost Sharing
  - Bias is toward capital input instead of operational maintenance because cost sharing is for capital costs. Useful life assumed to be 10 years.
  - Median Cost of $ 75,838 indicates that there is not much advantage to economies of scale.
  - Producers had to agree NOT to install free stalls. Cost share (100%) funding goal is water quality not business growth. Allowed to install free stalls in 10 years.
  - Planned for zero discharge during 25 yr 24 hr storm.
Some control measures would be more practical but had to meet exact letter of “standards”.

Soil Management BMP Costs:

<table>
<thead>
<tr>
<th></th>
<th>Total Cost</th>
<th>Cost /cwt.</th>
<th>Cost/acre</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>$ 95,591</td>
<td>$ 1.77</td>
<td>$ 98.10</td>
</tr>
<tr>
<td>Median</td>
<td>$ 57,870</td>
<td>$ 1.71</td>
<td>$ 104.60</td>
</tr>
</tbody>
</table>

- Does not include equipment or planning costs. Costs incurred on diversion, water and sediment control and structural measures. Some cost savings associated with nutrient management planning. Some of the highest costs were to maintain corn production in land that should be permanent sod.
- Soil management costs in Skaneateles high due to steep topography.

Pasture BMP Costs:

<table>
<thead>
<tr>
<th></th>
<th>Total Cost</th>
<th>Cost /cwt.</th>
</tr>
</thead>
<tbody>
<tr>
<td>Average</td>
<td>$ 34,785</td>
<td>$ 1.50</td>
</tr>
<tr>
<td>Median</td>
<td>$ 35,150</td>
<td>$ 1.06</td>
</tr>
</tbody>
</table>

- Pasture costs paid for laneways, water, piping, seeding, fencing.

Total costs and was it worth it?

- Average total cost of all BMP about $ 4.00/cwt.
- Improvement seen in farmers attitude, work load.
- What is net cost? Net costs due to improved performance and cost savings from NMP may be favorable on some farms.
- Measures prohibitive for farms without 100 % cost share.
- How much pollution reduction is achieved?
- Cost to Syracuse would be $ 60 million for filtration plant. Cost sharing in watershed cost $ 10 million. This watershed did not have a demonstrated water quality problem before implementation measures. Program simply to comply with Safe Drinking Water Act.
- Did cost share pay for manure storage? Did pay for some dry manure stacking areas but discouraged liquid storage structures. Did not want dairies putting out large quantities of manure over 2-3 week period.

AEM Farm Survey Preliminary Findings" Presented by Jeff Teneyck, New York State Soil and Water Conservation Committee.

Preliminary results of AEM CAFO cost survey attached.

Survey to assess CAFO costs requested by Farm Bureau.

- Certified and conditionally certified planners asked to complete a survey about their estimate of CNMP implementation costs. 74% of the NYS CAFOs were accounted for from 23 responses.
- Estimates were probably based on costs associated with structural farm changes. Not very formal – “planners taking wild ass guess” about costs.
• Planning costs ranged from $ 4.00 to $ 8.25 /acre. Many planners moving to charging on an hourly, instead of per acre, scale. Hourly charges ranged from $ 55-65 / hour.
• Survey indicates that at least $ 100 million cost to implement CAFOs in NYS. Jeff thinks # is closer to $ 150 million (excluding planning and increased operational costs).

Larger Policy Questions:
• Does NYS’s progressive environmental regulations put NYS dairies at a competitive disadvantage?
• Still not solving nutrient accumulation issue on farms?
• EQIP is projected to pay about $ 8 million to implement BMP in NYS. This plus $ 2 million from NYS NPS funds = $ 10 million. This leaves $ 90 – 140 million unfunded.
• What about small farms? On many small farms, especially horse farms, the animal density too high for crop production. In 14 states, 72% animals on farms < 500 animals.
• New EPA rules lighter on medium CAFO – are targeting 700 + head farms.
• AEM committee along with EPA consultant, Greg Poe and Pete Wright are going to further study CAFO costs.
• Why don’t people adopt NMPs?
• Diaries can’t raise the cost milk to cover – society has to make investment.
• Low interest loans not much better than nothing – farmers can’t pay for these measures.
• DEC and Ag & Markets negotiate a split between Ag and Non-ag (storm water) funds. DEC wants funding allocated to priority watersheds.
• Teaching environmentally friendly management slower (harder) than building a barnyard.
• Are funds for BMPs really solving the problem? Funding agencies like to see tangibles – concrete poured, dirt moved.
• We need to look at benefits.
  • What is impact of money spent on impaired water bodies? Costs of protecting private wells from contamination? Greater awareness of possibility of contaminated wells but in actual study, small number of wells contaminated in high cow density area and all were from non-ag sources.

Next Meeting:
Fall Planning Meeting – Date to be announced.

Dr. Cameron Gourley
Senior Research Scientist, Soils & Land Management
Project Manager, Resilient Dairy Systems
Ellinbank Research Institute
Department of Primary Industries, VIC, Australia

The details will be announced. The date will be in early November.
CAFO CNMP Implementation Cost Survey 6/2003

Certified and Conditionally Certified Planners were asked to complete a simple survey providing their best guess at identifying the cost for each of their clients to implement their CNMP.

Response
Seventy-four (74) per cent (483 of 653) of CAFOs were accounted for from 23 responses

200 – 300 head 190 farms
301 – 750 head 207 farms
750+ head 86 farms

Costs Reported

<table>
<thead>
<tr>
<th>Range</th>
<th>Response</th>
</tr>
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<tbody>
<tr>
<td>0 - $20,000</td>
<td></td>
</tr>
<tr>
<td>$20,001 – 100,000</td>
<td>193</td>
</tr>
<tr>
<td>$100,001 – 200,000</td>
<td>161</td>
</tr>
<tr>
<td>$200,001 – 350,000</td>
<td>76</td>
</tr>
<tr>
<td>$350,000 +</td>
<td>34</td>
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Private planner fees for initial CNMP development = $50 to $65/hour

Planner fees for CNMP revisions/updates = $1 - $8.25/acre or $25 to $35/hour

Cost Estimates
Using the following figures as the average cost of implementation for each range a total cost estimate of implementation was calculated.

0 - $20,000: $15,000 x 19 = $285,000.
$20,001 – 100,000: $60,000 x 193 = $11,580,000.
$100,001 – 200,000: $150,000 x 161 = $24,150,000.
$200,001 – 350,000: $275,000 x 76 = $20,900,000.
$350,000+: $450,000 x 34 = $15,300,000.

Total = $72,215,000

Average cost per CAFO - $72,215,000 / 483 = $149,513.

Total cost projected across 653 current CAFOs - $149,513 x 653 = $97,632,282.